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L3: Entry 3 of 5

File: USPT

Jan 28, 2003

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TITLE: ATM transmission system

Brief Summary Text (31):

The above and other objects are attained by an ATM transmission system comprising a transmitting station, a receiving station, a communication channel between said stations for transmitting an ATM cell, data communication with a protocol data unit (PDU) having a packet and a header being carried out by using an ATM adaptation layer (AAL) which can recognize an end of packet cell (EOP cell) in a PDU by referring to a header in said EOP cell, and a plurality of ATM cells which form said protocol data unit being continuously applied to said transmitting station; wherein said receiving station comprises; an error detection means for detection whether an ATM cell is received correctly or incorrectly or lost; a cell arrival informing means for informing the transmitting station the result of said detection; said transmitting station comprises; a transmit buffer for temporarily storing an ATM cell to be transmitted; a group handling means for handling a plurality of ATM cells which form a protocol data unit in a common convergence sublayer as one group; a receiving means of a said cell arrival information whether the ATM cell has been received correctly or incorrectly or lost from an associated receiving station; a group data discard means for discarding all the ATM cells belonging to the group which includes an incorrectly received or lost ATM cell stored in said transmit buffer, when said receiving means receives the information of an incorrectly received or lost ATM cell; an end of packet cell (EOP cell) transmitting means for transmitting an EOP cell which has a flag in a payload type field in an ATM cell header, said flag indicating that the EOP cell is a final cell in the protocol data unit of the group, when said group data discard means discards the ATM cell in said transmit buffer; an ATM cell discard means for discarding an ATM cell which belongs to the discarded group, and arrives after discard.

Detailed Description Text (14):

In a type 5 of an ATM adaptation layer (AAL), the transmitting station 100 refers to a field of payload type (PT) and a field of virtual path identifier (VPI) and a virtual channel identifier (VCI) in an ATM cell header, and handles a packet having a plurality of ATM cells which consist a common part convergence sub-layer protocol data unit (CPCS-PDU) (see FIG. 5).